CONNECTING THE WIRES

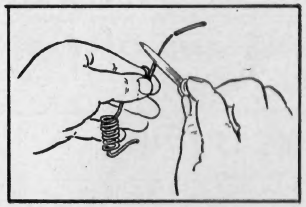

Figure 5—Removing Insulation

Remove insulating covering from the ends of the wires before making connections. Wrap the wire around your index finger. Rest the wire end on a solid surface. Then place a knife edge firmly on the wire and pull wire toward you. This will remove insulation without cutting the copper wire.

Push down the springy upper half of the Lockon terminal clip until the metal loop in the lower part projects through the top. Insert the bare wire end through the loop and release the upper half. Spring tension will hold the wire tight.

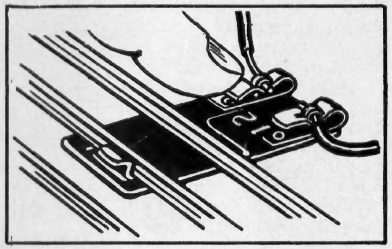

Figure 6—Lockon Connections

The other ends of the two wires connected to the Lockon go to a pair of transformer binding posts which give variable voltage. On No. 1033 transformer, which is furnished with all "027" train outfits, these posts are either U-A or U-B. On simple layouts, the order does not matter. Wrap the bare wire around the screw portion of the post and screw down the thumb nut tightly. Make sure the wire doesn't slip out as you tighten nut.

First try the U-B posts. Then, if the train does not go fast enough, use U-A posts.

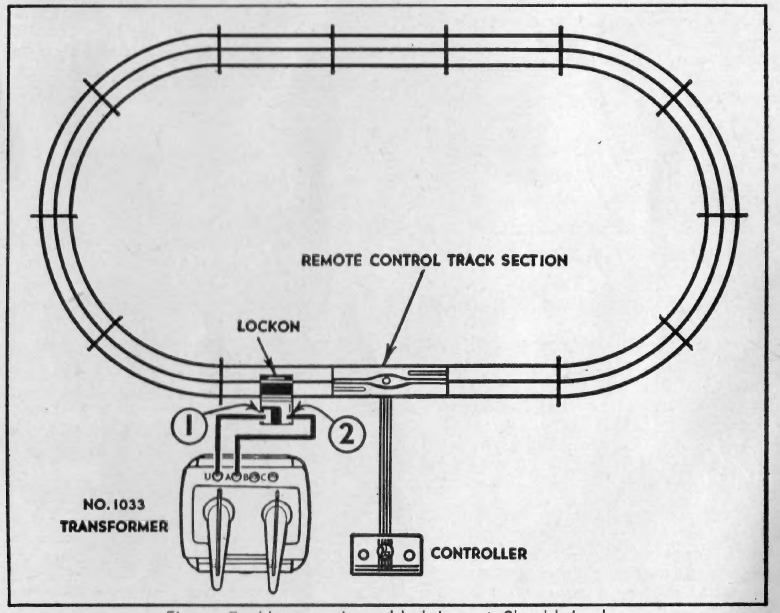

Figure 7—How an Assembled Layout Should Look

HOW TO SET UP YOUR TRAIN

CHECK AND LUBRICATE YOUR EQUIPMENT

By the time you read this you have probably already unpacked and examined your Lionel outfit. It's a good idea to save the boxes and the corrugated board packing. They will come in handy for storing or transporting your equipment. Check the equipment to see that nothing is missing or broken. Spin all the car wheels to see that they turn freely and put a small dab of Lionel lubricant on the ends of the axles.

If your locomotive is one of those where the motor can be reached from the side, as illustrated in Figure 8, you should lubricate the ends of the armature shaft before you try to run it, or it may bind.

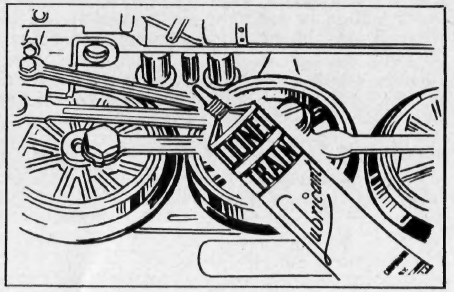

Figure 8—Lubricating Locomotive Motor

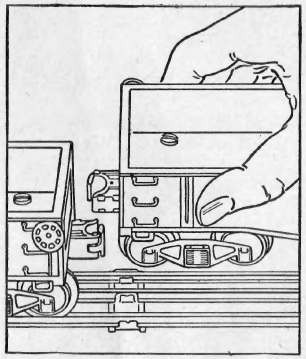

Figure 9—How to Couple Cars

HOW TO SET UP THE TRAIN

Place the locomotive and tender on the track and join them by means of the locomotive drawbar. If you have a diesel outfit the power car should be first. Then couple on the rest of the cars by raising the end of the car and engaging the coupler by hand. (See Figure 9) If the couplers are open close them by pushing in the coupler knuckle until it snaps shut. The heaviest cars should generally be placed at the head of the train.

Make sure that all the wheels of the locomotive and the cars are properly set on the track. If they are not, they may cause a "short circuit" on the track and the train will not operate.

CHECK YOUR POWER SUPPLY

There are several things you should know about your electrical power supply before you plug in your transformer or attempt to operate your train.

1. **Never connect your train layout directly to an electric outlet. Always use a transformer.**

A transformer changes the high voltage electric power used in your house (usually 115 volts) to the low voltage used for operating toy trains (from 8 to 18 volts). The transformer cord is plugged into any convenient wall outlet. Low voltage is then obtained from the binding posts on top or in back of your transformer.

2. **All household power lines are not alike. Make sure that the voltage and frequency (cycles) of your electric power supply correspond to the rating of your transformer. If in doubt ask your electric company.**
3. **If you happen to have direct current (DC) a transformer cannot be used for it will burn out immediately.**

For a full discussion of your power supply see page 35.